OTPE CON PURE DE LA PROPERTIE DE LA PROPERTIE

SEQUENCE LISTING

```
Charles, Ian G.
     Xu, Weiming
     Liu, Lizhi
<120> Microencapsulated Nitric Oxide Synthase Source
<130> HO-P02379US0
<140> US 10/049,321
<141> 2002-02-11
<150> GB 9918077
<151> 1999-07-30
<150> GB 0016171.1
<151> 2000-06-30
<160> 5
<170> PatentIn version 3.1
<210> 1
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> C-terminal residues of human iNOS
<220>
<221> MOD RES
<222> (4)..(4)
<223> Orn
<220>
<221> MOD RES
<222> (3)..(3)
<223> Nle
<220>
<221> MISC_FEATURE
<222> (1)..(11)
<223> X = Modified Residues
<400> 1
Cys Arg Xaa Xaa Ser Leu Glu Met Ser Ala Leu
                                    10
                5
<210>
       2
<211>
      19
<212>
      DNA
<213> BACTERIA
```

25220834 - 1 -

<400> 2

<210><211><212><213>	3 4164 DNA huma						
<400> agagaac	3 etca	gcctcattcc	tgctttaaaa	tctctcggcc	acctttgatg	aggggactgg	60
gcagtto	ctag	acagtcccga	agttctcaag	gcacaggtct	cttcctggtt	tgactgtcct	120
taccccg	1999	aggcagtgca	gccagctgca	agccccacag	tgaagaacat	ctgagctcaa	180
atccaga	ataa	gtgacataag	tgacctgctt	tgtaaagcca	tagagatggc	ctgtccttgg	240
aaattto	etgt	tcaagaccaa	attccaccag	tatgcaatga	atggggaaaa	agacatcaac	300
aacaatç	gtgg	agaaagcccc	ctgtgccacc	tccagtccag	tgacacagga	tgaccttcag	360
tatcaca	aacc	tcagcaagca	gcagaatgag	tccccgcagc	ccctcgtgga	gacgggaaag	420
aagtcto	ccag	aatctctggt	caagctggat	gcaaccccat	tgtcctcccc	acggcatgtg	480
aggatca	aaaa	actggggcag	cgggatgact	ttccaagaca	cacttcacca	taaggccaaa	540
gggattt	taa	cttgcaggtc	caaatcttgc	ctggggtcca	ttatgactcc	caaaagtttg	600
accagag	ggac	ccagggacaa	gcctacccct	ccagatgagc	ttctacctca	agctatcgaa	660
tttgtca	aacc	aatattacgg	ctccttcaaa	gaggcaaaaa	tagaggaaca	tctggccagg	720
gtggaag	gcgg	taacaaagga	gatagaaaca	acaggaacct	accaactgac	gggagatgag	780
ctcatct	tcg	ccaccaagca	ggcctggcgc	aatgccccac	gctgcattgg	gaggatccag	840
tggtcca	aacc	tgcaggtctt	cgatgcccgc	agctgttcca	ctgcccggga	aatgtttgaa	900
cacatct	gca	gacacgtgcg	ttactccacc	aacaatggca	acatcaggtc	ggccatcacc	960
gtgttc	ccc	agcggagtga	tggcaagcac	gacttccggg	tgtggaatgc	tcagctcatc	1020
cgctate	gctg	gctaccagat	gccagatggc	agcatcagag	gggaccctgc	caacgtggaa	1080
ttcacto	cagc	tgtgcatcga	cctgggctgg	aagcccaagt	acggccgctt	cgatgtggtc	1140
cccctgg	gtcc	tgcaggccaa	tggccgtgac	cctgagctct	tcgaaatccc	acctgacctt	1200
gtgctt	gagg	tggccatgga	acatcccaaa	tacgagtggt	ttcgggaact	ggagctaaag	1260
tggtac	gccc	tgcctgcagt	ggccaacatg	ctgcttgagg	tgggcggcct	ggagttccca	1320
gggtgc	ccct	tcaatggctg	gtacatgggc	acagagatcg	gagtccggga	cttctgtgac	1380
gtccago	gct	acaacatcct	ggaggaagtg	ggcaggagaa	tgggcctgga	aacgcacaag	1440
ctggcct	cgc	tctggaaaga	ccaggctgtc	gttgagatca	acattgctgt	gctccatagt	1500
ttccaga	aagc	agaatgtgac	catcatggac	caccactcgg	ctgcagaatc	cttcatgaag	1560

25220834 - 2 -

•						
٠.	· · · · ·					
tacatgcaga	atgaataccg	gtcccgtggg	ggctgcccgg	cagactggat	ttggctggtc	1620
cctcccatgt	ctgggagcat	caccccgtg	tttcaccagg	agatgctgaa	ctacgtcctg	1680
teceettet	actactatca	ggtagaggcc	tggaaaaccc	atgtctggca	ggacgagaag	1740
cggagaccca	agagaagaga	gattccattg	aaagtcttgg	tcaaagctgt	gctctttgcc	1800
tgtatgctga	tgcgcaagac	aatggcgtcc	cgagtcagag	tcaccatcct	ctttgcgaca	1860
gagacaggaa	aatcagaggc	gctggcctgg	gacctggggg	ccttattcag	ctgtgccttc	1920
aaccccaagg	ttgtctgcat	ggataagtac	aggctgagct	gcctggagga	ggaacggctg	1980
ctgttggtgg	tgaccagtac	gtttggcaat	ggagactgcc	ctggcaatgg	agagaaactg	2040
aagaaatcgc	tcttcatgct	gaaagagctc	aacaacaaat	tcaggtacgc	tgtgtttggc	2100
ctcggctcca	gcatgtaccc	teggttetge	gcctttgctc	atgacattga	tcagaagctg	2160
tcccacctgg	gggcctctca	getcaccccg	atgggagaag	gggatgagct	cagtgggcag	2220
gaggacgcct	tccgcagctg	ggccgtgcaa	accttcaagg	cagcctgtga	gacgtttgat	2280
gtccgaggca	aacagcacat	tcagatcccc	aagctctaca	cctccaatgt	gacctgggac	2340
ccgcaccact	acaggctcgt	gcaggactca	cagcctttgg	acctcagcaa	agccctcagc	2400
agcatgcatg	ccaagaacgt	gttcaccatg	aggctcaaat	ctcggcagaa	tctacaaagt	2460
ccgacatcca	gccgtgccac	catcctggtg	gaactctcct	gtgaggatgg	ccaaggcctg	2520
aactacctgc	cgggggagca	ccttggggtt	tgcccaggca	accagccggc	cctggtccaa	2580
ggtatcctgg	agcgagtggt	ggatggcccc	acaccccacc	agacagtgcg	cctggaggcc	2640
ctggatgaga	gtggcagcta	ctgggtcagt	gacaagaggc	tgcccccctg	ctcactcagc	2700
caggccctca	cctacttcct	ggacatcacc	acacccccaa	cccagctgct	gctccaaaag	2760
ctggcccagg	tggccacaga	agagcctgag	agacagaggc	tggaggccct	gtgccagccc	2820
tcagagtaca	gcaagtggaa	gttcaccaac	agccccacat	tcctggaggt	gctagaggag	2880
ttcccgtccc	tgcgggtgtc	tgctggcttc	ctgctttccc	agctccccat	tctgaagccc	2940
aggttctact	ccatcagctc	ctcccgggat	cacacgccca	cagagatcca	cctgactgtg	3000
gccgtggtca	cctaccacac	ccgagatggc	cagggtcccc	tgcaccacgg	cgtctgcagc	3060
acatggctca	acagcctgaa	gccccaagac	ccagtgccct	gctttgtgcg	gaatgccagc	3120
ggcttccacc	tccccgagga	tccctcccat	ccttgcatcc	tcatcgggcc	tggcacaggc	3180
atcgcgccct	tccgcagttt	ctggcagcaa	cggctccatg	actcccagca	caagggagtg	3240
cggggaggcc	gcatgacctt	ggtgtttggg	tgccgccgcc	cagatgagga	ccacatctac	3300
caggaggaga	tgctggagat	ggcccagaag	ggggtgctgc	atgcggtgca	cacagcctat	3360
tcccgcctgc	ctggcaagcc	caaggtctat	gttcaggaca	tectgeggea	gcagctggcc	3420

25220834 - 3 -

3480 agegaggtge teegtgtget ceacaaggag ceaggeeace tetatgtttg eggggatgtg cgcatggccc gggacgtggc ccacaccctg aagcagctgg tggctgccaa gctgaaattg 3540 aatgaggagc aggtcgagga ctatttcttt cagctcaaga gccagaagcg ctatcacgaa 3600 3660 gatatetttg gtgetgtatt teettaegag gegaagaagg acagggtgge ggtgeageee agcagcctgg agatgtcagc gctctgaggg cctacaggag gggttaaagc tgccggcaca 3720 gaacttaagg atggagccag ctctgcatta tctgaggtca cagggcctgg ggagatggag 3780 gaaagtgata tcccccagcc tcaagtctta tttcctcaac gttgctcccc atcaagccct 3840 ttacttgacc tcctaacaag tagcaccctg gattgatcgg agcctcctct ctcaaactgg 3900 ggcctccctg gtcccttgga gacaaaatct taaatgccag gcctggcaag tgggtgaaag 3960 atggaacttg ctgctgagtg caccacttca agtgaccacc aggaggtgct atcgcaccac 4020 4080 tgtgtattta actgccttgt gtacagttat ttatgcctct gtatttaaaa aactaacacc cagtctgttc cccatggcca cttgggtctt ccctgtatga ttccttgatg gagatattta 4140 catgaattgc attttacttt aatc 4164

<210> 4

<211> 7124

<212> DNA <213> human

<400> 4 60 agageggete ttttaatgag ggttgegaeg tetecetece cacacccata aaccagtegg gttggacgtc actgctaatt cgtttcagtg atgataggat aaaggaggga cattaagaaa 120 180 taaattcccc ctcacgaccc tcgctgagct cacggctcag tccctacata tttatgccgc 240 gtttccagcc gctgggtgag gagctactta gcgccgcggc tcctccgagg ggcggccggg cagcgagcag cggccgagcg gacgggctca tgatgcctca gatctgatcc gcatctaaca 300 360 ggctggcaat gaagataccc agagaatagt tcacatctat catgcgtcac ttctagacac 420 agecateaga egeateteet eccetteetg eetgacetta ggacaegtee eacegeetet 480 cttgacgtct gcctggtcaa ccatcacttc cttagagaat aaggagagag gcggatgcag 540 gaaatcatgc caccgacggg ccaccagcca tgagtgggtg acgctgagct gacgtcaaag acagagaggg ctgaagcctt gtcagcacct gtcaccccgg ctcctgctct ccgtgtagcc 600 tgaagcctgg atcctcctgg tgaaatcatc ttggcctgat agcattgtga ggtcttcaga 660 720 caggacccct cggaagctag ttaccatgga ggatcacatg ttcggtgttc agcaaatcca gcccaatgtc atttctgttc gtctcttcaa gcgcaaagtt gggggcctgg gatttctggt 780 840 gaaggagegg gteagtaage egecegtgat catetetgae etgattegtg ggggegeege

25220834 - 4 -

agagcagagt ggcctcatcc aggccggaga catcattctt gcggtcaacg gccggccctt 900 ggtggacctg agctatgaca gcgccctgga ggtactcaga ggcattgcct ctgagaccca 960 cgtggtcctc attctgaggg gccctgaagg tttcaccacg cacctggaga ccacctttac 1020 aggtgatggg acccccaaga ccatccgggt gacacagccc ctgggtcccc ccaccaaagc 1080 cgtggatctg tcccaccagc caccggccgg caaagaacag cccctggcag tggatggggc 1140 ctcgggtccc gggaatgggc ctcagcatgc ctacgatgat gggcaggagg ctggctcact 1200 1260 ccccatgcc aacggcctgg cccccaggcc cccaggccag gaccccgcga agaaagcaac 1320 cagagtcagc ctccaaggca gaggggagaa caatgaactg ctcaaggaga tagagcctgt gctgagcctt ctcaccagtg ggagcagagg ggtcaaggga ggggcacctg ccaaggcaga 1380 1440 gatgaaagat atgggaatcc aggtggacag agatttggac ggcaagtcac acaaacctct gcccctcggc gtggagaacg accgagtctt caatgaccta tgggggaagg gcaatgtgcc 1500 tgtcgtcctc aacaacccat attcagagaa ggagcagccc cccacctcag gaaaacagtc 1560 ccccacaaag aatggcagcc cctccaagtg tccacgcttc ctcaaggtca agaactggga 1620 gactgaggtg gttctcactg acaccctcca ccttaagagc acattggaaa cgggatgcac 1680 tgagtacatc tgcatgggct ccatcatgca tccttctcag catgcaagga ggcctgaaga 1740 cgtccgcaca aaaggacagc tcttccctct cgccaaagag tttattgatc aatactattc 1800 atcaattaaa agatttggct ccaaagccca catggaaagg ctggaagagg tgaacaaaga 1860 gatcgacacc actagcactt accagctcaa ggacacagag ctcatctatg gggccaagca 1920 cgcctggcgg aatgcctcgc gctgtgtggg caggatccag tggtccaagc tgcaggtatt 1980 cgatgcccgt gactgcacca cggcccacgg gatgttcaac tacatctgta accatgtcaa 2040 2100 gtatgccacc aacaaaggga acctcaggtc tgccatcacc atattccccc agaggacaga 2160 cggcaagcac gacttccgag tctggaactc ccagctcatc cgctacgctg gctacaagca gcctgacggc tccaccctgg gggacccagc caatgtgcag ttcacagaga tatgcataca 2220 2280 qcagggctgg aaaccgccta gaggccgctt cgatgtcctg ccgctcctgc ttcaggccaa cggcaatgac cctgagctct tccagattcc tccagagctg gtgttggaag ttcccatcag 2340 gcaccccaag tttgagtggt tcaaggacct ggggctgaag tggtacggcc tccccgccgt 2400 gtccaacatg ctcctagaga ttggcggcct ggagttcagc gcctgtccct tcagtggctg 2460 gtacatgggc acagagattg gtgtccgcga ctactgtgac aactcccgct acaatatcct 2520 ggaggaagtg gccaagaaga tgaacttaga catgaggaag acgtcctccc tgtggaagga 2580 ccaggcgctg gtggagatca atatcgcggt tctctatagc ttccagagtg acaaagtgac 2640

25220834 - 5 -

cattgttgac catcactccg ccaccgagtc cttcattaag cacatggaga atgagtaccg etgeegggg ggetgeeetg cegaetgggt gtggategtg cececcatgt ceggaageat 2760 cacccctgtg ttccaccagg agatgctcaa ctaccggctc accccctcct tcgaatacca 2820 2880 geetgateee tggaacaege atgtetggaa aggeaceaae gggaceeeca caaageggeg agccatcggc ttcaagaagc tagcagaagc tgtcaagttc tcggccaagc tgatggggca 2940 ggctatggcc aagagggtga aagcgaccat cctctatgcc acagagacag gcaaatcgca 3000 3060 agettatgee aagacettgt gtgagatett caaacaegee tttgatgeea aggtgatgte catggaagaa tatgacattg tgcacctgga acatgaaact ctggtccttg tggtcaccag 3120 cacctttggc aatggagatc cccctgagaa tggggagaaa ttcggctgtg ctttgatgga 3180 aatgaggcac cccaactctg tgcaggaaga aaggaagagc tacaaggtcc gattcaacag 3240 3300 cgtctcctcc tactctgact cccaaaaatc atcaggcgat gggcccgacc tcagagacaa ctttgagagt gctggacccc tggccaatgt gaggttctca gtttttggcc tcggctcacg 3360 3420 agcataccct cacttttgcg ccttcggaca cgctgtggac accctcctgg aagaactggg aggggagagg atcctgaaga tgagggaagg ggatgagctc tgtgggcagg aagaggcttt 3480 caggacctgg gccaagaagg tcttcaaggc agcctgtgat gtcttctgtg tgggagatga 3540 tgtcaacatt gaaaaggcca acaattccct catcagcaat gatcgcagct ggaagagaaa 3600 caagttccgc ctcacctttg tggccgaagc tccagaactc acacaaggtc tatccaatgt 3660 ccacaaaaag cgagtctcag ctgcccggct ccttagccgt caaaacctcc agagccctaa 3720 atccagtcgg tcaactatct tcgtgcgtct ccacaccaac gggagccagg agctgcagta 3780 ccagcctggg gaccacctgg gtgtcttccc tggcaaccac gaggacctcg tgaatgccct 3840 3900 gatcgagcgg ctggaggacg cgccgcctgt caaccagatg gtgaaagtgg aactgctgga ggageggaac aeggetttag gtgtcatcag taactggaca gaegagetee geeteeegee 3960 4020 ctgcaccatc ttccaggcct tcaagtacta cctggacatc accacgccac caacgcctct gcagetgcag cagtttgcct ccctagctac cagegagaag gagaagcagc gtctgctggt 4080 cctcagcaag ggtttgcagg agtacgagga atggaaatgg ggcaagaacc ccaccatcgt 4140 ggaggtgctg gaggagttcc catctatcca gatgccggcc accetgctcc tgacccagct 4200 gtccctgctg cagccccgct actattccat cagctcctcc ccagacatgt accctgatga 4260 agtgcacctc actgtggcca tcgtttccta ccgcactcga gatggagaag gaccaattca 4320 ccacggcgta tgctcctcct ggctcaaccg gatacaggct gacgaactgg tcccctgttt 4380 egtgagagga geacceaget tecacetgee eeggaaceee caagteeeet geateetegt 4440 tggaccaggc accggcattg cccctttccg aagcttctgg caacagcggc aatttgatat 4500

25220834 - 6 -

ccaacacaaa ggaatgaacc cctgccccat ggtcctggtc ttcgggtgcc ggcaatccaa 4560 4620 gatagatcat atctacaggg aagagaccct gcaggccaag aacaaggggg tcttcagaga 4680 gctgtacacg gcttactccc gggagccaga caaaccaaag aagtacgtgc aggacatcct gcaggagcag ctggcggagt ctgtgtaccg agccctgaag gagcaagggg gccacatata 4740 cgtctgtggg gacgtcacca tggctgctga tgtcctcaaa gccatccagc gcatcatgac 4800 ccaqcaqqqq aaqctctcgq cagaggacgc cggcgtattc atcagccgga tgagggatga 4860 caaccgatac catgaggata tttttggagt caccctgcga acgtacgaag tgaccaaccg 4920 4980 ccttagatct gagtccattg ccttcattga agagagcaaa aaagacaccg atgaggtttt cagetectaa etggaeeete ttgeeeagee ggetgeaagt tttgtaageg eggaeagaea 5040 5100 etgetgaace titectetgg gaccecetgt ggeecteget etgeeteetg teettgtege 5160 tgtgccctgg tttccctcct cgggcttctc gcccctcagt ggtttcctcg gccctcctgg gtttactcct tgagttttcc tgctgcgatg caatgctttt ctaatctgca gtggctctta 5220 caaaactctg ttcccactcc ctctcttgcc gacaagggca actcacgggt gcatgaaacc 5280 5340 actggaacat ggccgtcgct gtgggggttt ttttctctgg ggttcccctg gaaaggctgc aggaactagg cacaagetet etgagecagt ceetcageca etgaagteee eettteteet 5400 5460 gtgtgatggg ccaggtctct gtccgtcctc ttccctgcac aagtgtgtcg atcttagatt 5520 5580 gccactgctt tcattgaaga ccctcaatgc caagaaacgt gtccctggcc catattaatc cctcgtgtgt ccataattag ggtccacgcc catgtacctg aaacatttgg aagccccata 5640 attgttctag ttagaaaggg ttcagggcat ggggagagga gtgggaaatt gattaaaggg 5700 gctgtctccc aatgaaagag gcattcccag aatttgctgc atttagattt tgataccagt 5760 gagcagagec eteatgtgae atgaaceeat eeaatggatt gtgeaaatee eeteeeeaaa 5820 cccacccata ccagctagaa tcacttgact ttgccacatc cattgactga cccctcctc 5880 5940 cagcaatagc atccaagggg cctggaagtt atgttgttca aagaagcctg gtggcaataa ggatcttccc actttgccac tggatgactt tggatgggtc acttgtcctc agtttttcct 6000 agtcataatg tcatacgaac ctaaagaata tgaatggatt aaatgttaaa gctttggtgc 6060 ctggaaacaa tatcaagtaa caatatgatt attatttttt tattccccca aagcgggctt 6120 gctgcttcac ccttggggat gaaataatgg aagctggtta aagtggatga ggttggaaag 6180 agttgccata atgaggtccc acgtggcttc ttcgatagga gccacaactt ggggtgggaa 6240 gaacttgtcc ctcaggcttg ttgccctctg cagttgatct ccaaagtttt aaacctgtta 6300

25220834 - 7 -

aattaatttt gacaaataag ttaccctcaa ctcagatcaa aaatgggcag ccaagtcttc 6360 ggtaggaatt ggagccggtg taattcctcc ctaagaggca acctgttgaa tttactctct 6420 cagagtaaat ggtgggaagg gatccctttg tatacttttt taaatactac aaattagtgt 6480 6540 caggcagttc ccagaaagag acaagaaatc ctagtggcct cccagactgc agggtcccca aggatggaaa gggaatgttc tgctggttct accctgtttg ttgtgtcttg ctatacagaa 6600 aaaccacatt tettttatat aetgtaegtg ggeatatett gttgtteagt ttgggtgtet 6660 6720 gctaaagagg aagtgcactg gccctctttg aaagggcttt acagtggggg caccaagacc ccaaaggccc aggccaggag actgttaaag tgaaaaggca atctatgact caccttgctc 6780 tgccatccct ggcagccccc accggtgtcc tgttcctgcc acatggagct tgacttcatg 6840 ccagetataa teteceetge etteetttaa teecaattte eeetgeteae tetteeacag 6900 atataaagaa caaacactta gcatcccaca ctcacccctt ctaatcctga agggaagccc 6960 7020 attotaaact cotttootge aaacccattt ccagotoota gtagotttoo toccaaaggo 7080 tttctttcca atcctttata gctttggaga cgcctcccca attccccagg gaaggaaact 7124 gttgtgtcca atccccatta aagacaaatt gatcagtgct tccc

<210> 5

<211> 3690

<212> DNA

<213> human

<400> 5 cagagtggac gcacagtaac atgggcaact tgaagagcgt ggcccaggag cctgggccac 60 cetgeggeet ggggetgggg etgggeettg ggetgtgegg caageaggge eeageeacee eggcccctga gcccagccgg gcccagcat ccctactccc accagcgcca gaacacagcc 180 ccccgagctc cccgctaacc cagcccccag aggggcccaa gttccctcgt gtgaagaact 240 gggaggtggg gagcatcacc tatgacaccc tcagcgccca ggcgcagcag gatgggccct 300 gcaccccaag acgctgcctg ggctccctgg tatttccacg gaaactacag ggccggccct 360 cccccggccc cccggcccct gagcagctgc tgagtcaggc ccgggacttc atcaaccagt 420 actacagete cattaagagg ageggeteee aggeecacga acageggett caagaggtgg 480 aageegaggt ggeageeaca ggeacetace agettaggga gagegagetg gtgttegggg 540 ctaagcaggc ctggcgcaac gctccccgct gcgtgggccg gatccagtgg gggaagctgc 600 aggtgttcga tgcccgggac tgcaggtctg cacaggaaat gttcacctac atctgcaacc 660 acatcaagta tgccaccaac cggggcaacc ttcgctcggc catcacagtg ttcccgcagc 720 gctgccctgg ccgaggagac ttccgaatct ggaacagcca gctggtgcgc tacgcgggct 780

25220834 - 8 -

840 accggcagca ggacggctct gtgcgggggg acccagccaa cgtggagatc accgagctct gcattcagca cggctggacc ccaggaaacg gtcgcttcga cgtgctgccc ctgctgctgc 900 aggececaga tgagececca gaactettee ttetgecece egagetggte ettgaggtge 960 ccctggagca ccccacgctg gagtggtttg cagccctggg cctgcgctgg tacgccctcc 1020 cggcagtgtc caacatgctg ctggaaattg ggggcctgga gttccccgca gcccccttca 1080 gtggctggta catgagcact gagatcggca cgaggaacct gtgtgaccct caccgctaca 1140 acatectgga ggatgtgget gtetgeatgg acetggatae ceggaceace tegtecetgt 1200 ggaaagacaa ggcagcagtg gaaatcaacg tggccgtgct gcacagttac cagctagcca 1260 aagtcaccat cgtggaccac cacgccgcca cggcctcttt catgaagcac ctggagaatg 1320 agcagaaggc caggggggc tgccctgcag actgggcctg gatcgtgccc cccatctcgg 1380 geagecteae teetgtttte eateaggaga tggteaacta ttteetgtee eeggeettee 1440 1500 gctaccagec agaccectgg aaggggagtg cegecaaggg caccggcate accaggaaga agacctttaa agaagtggcc aacgccgtga agatctccgc ctcgctcatg ggcacggtga 1560 tggcgaagcg agtgaaggcg acaatcctgt atggctccga gaccggccgg gcccagagct 1620 acgcacagca gctggggaga ctcttccgga aggcttttga tccccgggtc ctgtgtatgg 1680 atgagtatga cgtggtgtcc ctcgaacacg agacgctggt gctggtggta accagcacat 1740 ttgggaatgg ggatcccccg gagaatggag agagctttgc agctgccctg atggagatgt 1800 coggeceta caacagetee ectoggeogg aacageacaa gagttataag atcogettea 1860 acagcatete etgeteagae eeaetggtgt eetettggeg geggaagagg aaggagteea 1920 gtaacacaga cagtgcaggg gccctgggca ccctcaggtt ctgtgtgttc gggctcggct 1980 cccgggcata ccccacttc tgcgcctttg ctcgtgccgt ggacacacgg ctggaggaac 2040 tgggcgggga gcggctgctg cagctgggcc agggcgacga gctgtgcggc caggaggagg 2100 cetteegagg etgggeeeag getgeettee aggeegeetg tgagacette tgtgtgggag 2160 aggatgecaa ggeegeegee egagacatet teageeceaa aeggagetgg aagegeeaga 2220 ggtaccggct gagcgcccag gccgagggcc tgcagttgct gccaggtctg atccacgtgc 2280 acaggeggaa gatgtteeag getacaatee geteagtgga aaacetgeaa ageageaagt 2340 ccacgagggc caccatectg gtgcgcctgg acaccggagg ccaggagggg ctgcagtacc 2400 agceggggga ceacataggt gtetgeeege ceaaceggee eggeettgtg gaggegetge 2460 tgagcegegt ggaggaceeg eeggegeeca etgageeegt ggeagtagag eagetggaga 2520 agggcageee tggtggeeet eeeceegget gggtgeggga eeeeeggetg eeeeegtgea 2580 egetgegeca ggeteteace ttetteetgg acateacete eccacecage ceteagetet 2640

25220834 - 9 -

tgcggctgct cagcaccttg gcagaagagc ccagggaaca gcaggagctg gaggccctca 2700 gccaggatcc ccgacgctac gaggagtgga agtggttccg ctgccccacg ctgctggagg 2760 tgctggagca gttcccgtcg gtggcgctgc ctgccccact gctcctcacc cagctgcctc 2820 tgctccagcc ccggtactac tcagtcagct cggcacccag cacccaccca ggagagatcc 2880 acctcactgt agctgtgctg gcatacagga ctcaggatgg gctgggcccc ctgcactatg 2940 gagtetgete caegtggeta agecagetea ageceggaga ecetgtgeee tgetteatee 3000 ggggggctcc ctccttccgg ctgccacccg atcccagctt gccctgcatt ctggtgggtc 3060 caggcactgg cattgccccc ttccggggat tctggcagga gcggctgcat gacattgaga 3120 gcaaagggct gcagcccact cccatgactt tggtgttcgg ctgccgatgc tcccaacttq 3180 accateteta eegegaegag gtgeagaaeg eecageageg eggggtgttt ggeegagtee 3240 tcaccgcctt ctcccgggaa cctgacaacc ccaagaccta cgtgcaggac atcctgagga 3300 cggagctggc tgcggaggtg caccgcgtgc tgtgcctcga gcggggccac atgtttgtct 3360 gcggcgatgt taccatggca accaacgtcc tgcagaccgt gcagcgcatc ctggcgacgg 3420 agggcgacat ggagctggac gaggccggcg acgtcatcgg cgtgctgcgg gatcagcaac 3480 gctaccacga agacattttc gggctcacgc tgcgcaccca ggaggtgaca agccgcatac 3540 gcacccagag cttttccttg caggagcgtc agttgcgggg cgcagtgccc tgggcgttcg 3600 acceteeegg eteagacace aacageeect gagageegee tggettteee tteeagttee 3660 gggagagcgg ctgcccgact caggtccgcc 3690

25220834 - 10 -